	Application No.	Applicant(s)
	10/683,624	ATKINSON ET AL.
Office Action Summary	Examiner	Art Unit	
	JERRY B. DENNISON	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *49* is/are pending in the application.

    4a) Of the above claim(s) *1-20,45 and 50-53* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-44 and 46-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *10/10/03, 3/29/05, 6/6/05.*

4)☒ Interview Summary (PTO-413)
Paper No(s)/Mail. Date ____.

5)☐ Notice of Informal Patent Application

6)☐ Other: ____.

DETAILED ACTION

1.   This Action is in response to Application Number 10/683,624 received on 5

October 2004.

2.   Claims 1-53 are presented for examination.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I.   Claims 1-20, 45, and 50-53, drawn to classification of email messages

        based on electronic message transmission policies, classified in class

        709, subclass 207.

II.   Claims 21-44 and 46-49, drawn to classification of email messages based

        on a computational puzzle, classified in class 709, subclass 206.

The inventions are distinct, each from the other because of the following reasons:

        Inventions I and II are related as subcombinations disclosed as usable together

in a single combination. The subcombinations are distinct if they do not overlap in

scope and are not obvious variants, and if it is shown that at least one subcombination

is separately usable. In the instant case, subcombination I has separate utility such as

classifying messages based on the policies of the sender domain, wherein

subcombination II classifies messages according to if the sender responds to a

computational puzzle. Also, the prior art applicable to Group I would not likely be

applicable to Group II, and the groups would require separate searching

strategies/queries.

See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different classification;

(b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

(c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

(d) the prior art applicable to one invention would not likely be applicable to

another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C.

101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention**.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable

over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.

103(a) of the other invention.

During a telephone conversation with Michael B. Dodd (Reg. No. 46,437) on April

4, 2008 a provisional election was made without traverse to prosecute the invention of

Group II, claims 21-44, and 46-49. Affirmation of this election must be made by

applicant in replying to this Office action. Claims 1-20, 45, and 50-53 have been

withdrawn from further consideration by the examiner, as being drawn to a non-elected

invention. See 37 CFR 1.142(b).

Claim Interpretation

3.   In the interest of expedited prosecution, the Examiner would like to note that

several of the present claims (i.e., claims 21 and 36) present language that suggests or

makes subject matter optional (i.e. "such that" "can be"). Any language that suggests or

makes optional but does not require steps to be performed or does not limit a claim to a

particular structure does not limit the scope of a claim or claim limitation. See MPEP

2106, section II, subsection C for specific examples.

Applicant is encouraged to amend the system/apparatus claims so that the

claimed functions are positively recited, to ensure that those limitations may be given

patentable weight.

Claim Objections

4.   Claims 21, 36, 46, and 47 are objected to because of the following informalities:

5.   Claims 21, 36, 46, and 47 include the limitation, "different portions state

information" which appears to include a typographical error. It appears that the

limitation should recite, "different portions of state information." Appropriate correction

is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

6.   Claims 46-49 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

7.   Claims 46-49 recite a computer program product comprising one or more

computer readable media having stored thereon computer executable instructions.

Applicant's specification states:

"[0038] Embodiments within the scope of the present invention include computer-
readable media for carrying or having computer-executable instructions or data
structures stored thereon. Such computer-readable media may be any available media,
which is accessible by a general-purpose or special-purpose computer system. By way
of example, and not limitation, such computer-readable media can comprise physical
storage media such as RAM, ROM, EPROM, CD-ROM or other optical disk storage,
magnetic disk storage or other magnetic storage devices, **or any other media which
can be used to carry** or store desired program code means in the form of computer-
executable instructions, computer-readable instructions, or data structures and which
may be accessed by a general-purpose or special-purpose computer system.

[0039] **When information is transferred or provided over a network or another communications connection** (either hardwired, wireless, or a combination of hardwired or wireless) to a computer system, **the connection is properly viewed as a computer-readable medium. Thus, any such connection is properly termed a computer-readable medium.** Combinations of the above should also be included within the scope of computer-readable media. Computer-executable or computer-readable instructions comprise, for example, instructions and data which cause a general-purpose computer system or special-purpose computer system to perform a certain function or group of functions. The computer-executable or computer-readable instructions may be, for example, binaries, intermediate format instructions such as assembly language, or even source code."

Therefore, Applicant has provided intrinsic evidence in the specification that the phrase "computer-readable media" as used in the claims is intended to cover media which would have been recognized by one of ordinary skill at the time of the invention to include a carrier medium such as a signal or transmission media as well as a connection.

Applicant's inclusion of transmission media would have been reasonably interpreted by one of ordinary skill as a form of energy rather than a process, machine, manufacture or composition of matter.

See ANNEX IV "Computer-Related Nonstatutory Subject Matter", section (c) "Electro-Magnetic Signals" of the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", released 22 November 2005 in the Official Gazette ("Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101...These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.")

Therefore, claims 46-49 are not limited to embodiments which would enable the program to act as a computer component and realize its functionality to provide a practical application with a useful, concrete and tangible result.

As such, claims 46-49 are not limited to statutory subject matter and is therefore non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8.   Claims 21, 28-29, 34-36, 46, and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9.   Claims 21, 36, 46, and 47 include the limitation, "an act of generating puzzle input from one or more components of the electronic message, the one or more components selected from among at least a message body, a message attachment, and a message header, puzzle input generation including one or more of extracting portions of a component, hashing portions of a component, and concatenating portions of a component". It is unclear to Examiner whether the limitation, "puzzle input generation including one or more of extracting portions of a component, hashing portions of a component, and concatenating portions of a component" are components from the "one or more components," or if the limitation is a separate limitation, (i.e.

wherein the puzzle input generation includes one or more of…). For examining purposes, Examiner will interpret the limitation in the former case.

10.   Claims 21, 36, 46, and 47 include the limitation, "different portions state information". It is unclear to Examiner what "different portions [of] state information" is referring (i.e. the state of what?). For examination purposes, Examiner will interpret the limitation as broadly as "portions of information" or even just "information" itself, since the claim does not explain the meaning of "portions" or "state".

11.   Claim 21 recites the limitation "the puzzle input hash value" in the fourth limitation of the claim. There is insufficient antecedent basis for this limitation in the claim.

12.   Claims 21 and 46 recite the limitation (or one similar to it), "an act of identifying an answer document such that an answer hash value, calculated from a combination of the answer document and the puzzle input hash value, is an answer value for a computational puzzle, the answer value being calculated using a puzzle hash algorithm". It is unclear to Examiner how the answer document is identified by using itself.

13.   Claim 28 includes the limitation, "and having bit values equal to the corresponding bit values **of in** the hashes resulting from other answer documents in a second plurality of bit positions." It is unclear to Examiner as to the meaning of the

limitation. It appears that the claim is missing language between the words "of in" (i.e. of what?).

14.   Claim 29 includes the limitation, "wherein the act of identifying an answer document comprises an act of identifying an answer document that, when concatenated to the puzzle input and the concatenation of the answer document and puzzle input is hashed." It is unclear to Examiner how an answer document is identified using the answer document itself.

15.   Claim 34 recites the limitation "the act of querying a server" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, Examiner will interpret claim 34 to depend from claim 33.

16.   Claim 35 recites the limitation "the act of receiving one or more DNS TXT records" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, Examiner will interpret claim 35 to depend from claim 33.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

17.   Claims 21-26 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by

Goodman et al. (U.S. 2004/0003283).

18.   Regarding claim 21, Goodman disclosed a receiver receiving an email message

from an unauthorized address, and sending a challenge email that may include for

example a hash of different components of the email message and the sender has to

respond to the challenge in order to verify the sender's original email message.

Therefore, Goodman disclosed, in a sending domain (or receiving domain, since both

sides send and receive email to each other) that is network connectable to one or more

receiving domains, the sending domain including a sending messaging server

configured to send electronic messages to the receiving domains, a method for

indicating to a receiving side domain that the sending messaging server expended

computational resources to solve a computational puzzle before sending an electronic

message to the receiving side domain, the method comprising:

        an act of receiving electronic message data that is to be contained in an

electronic message (Goodman, 1010, 1020);

an act of generating an initial document from different portions state information (Goodman, [0041]);

an act of generating puzzle input from one or more components of the electronic message, the one or more components selected from among at least a message body, a message attachment, and a message header, puzzle input generation including one or more of extracting portions of a component, hashing portions of a component, and concatenating portions of a component (Goodman, [0041]);

an act of identifying an answer document such that an answer hash value, calculated from a combination of the answer document and the puzzle input hash value, is an answer value for a computational puzzle, the answer value being calculated using a puzzle hash algorithm (Goodman, [0041]); and

an act of sending an electronic message that includes the identified answer document and the electronic message data to the receiving side domain (Goodman, [0041]).

19.   Regarding claim 22, Goodman disclosed the limitations as described in claim 21, including wherein the act of receiving electronic message data that is to be contained in an electronic message comprises an act of receiving electronic message data that is to be contained in an electronic mail message (Goodman, Fig. 10, 1010, 1020).

20.   Regarding claim 23, Goodman disclosed the limitations as described in claim 21, including wherein the act of generating an initial document from different portions of

state information comprises an act of extracting data from at least one field of the

electronic message data wherein the at least one field is selected from a From field, a

To field, a NotBefore field, a NotAfter field, a Date field, a Body field, an Attachment

field, a Subject field, and a Message-Id field (Goodman, [0041]).

21.   Regarding claim 24, Goodman disclosed the limitations as described in claim 21,

Including wherein the act of generating an initial document from different portions of

state information comprises an act of extracting data from one or more date range fields

(Goodman, [0041]).

22.   Regarding claim 25, Goodman disclosed the limitations as described in claim 21,

including wherein the act of generating an initial document from different portions of the

state information comprises an act of extracting data wherein the data is text data,

graphical data, Uniform Resource Identifier ("URI") data, or executable data (Goodman,

[0041]).

23.   Regarding claim 26, Goodman disclosed the limitations as described in claim 21,

including wherein the act of identifying an answer document comprises an act of

identifying an answer document that, when combined with the puzzle input and the

combination of the answer document and puzzle input is hashed, results in a hash value

having a specified value in a plurality of fixed bit positions (Goodman, [0041], Goodman

disclosed a one-way hash of the components of the email message).

24.   Regarding claim 30, Goodman disclosed the limitations as described in claim 21,

including wherein the act of identifying an answer document comprises an act of using

an puzzle hash algorithm, the puzzle hash algorithm being specifically designed to

increase the difficulty of implementing hardware acceleration of the puzzle hash

algorithm (Goodman, [0041], one-way hash).

25.   Claims 48-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Kirsch

(U.S. 6,546,416).

26.   Regarding claim 48, Kirsch disclosed a computer program product for use in a

receiving domain that is network connectable to one or more sending domains, the

receiving domain including one or more receiving messaging servers configured to

receive electronic messages from the sending domains, the computer program product

for implementing a method for generating inputs to be provided to a message

classification module, the computer program product comprising one or more computer-

readable media having stored thereon computer executable instructions that, when

executed by a processor, cause the receiving domain to perform the following:

        receive an electronic message (Kirsch, col. 3, lines 43-47);

        utilize one or more of a plurality of different mechanisms for attempting to

determine if the received electronic message is an unwanted or an unsolicited electronic

message (Kirsch, col. 6, lines 20-40); and

provide results of each of the one or more different mechanisms to a message

classification module such that the message classification module can make a more

reliable decision when classifying the received electronic message (Kirsch, col. 7, lines

17-35).

27.   Regarding claim 49, Kirsch disclosed the limitations as described in claim 48,

49. The computer program product as recited in claim 48, wherein computer-executable

instructions that, when executed, cause the receiving domain to utilize one or more of a

plurality of different mechanisms for attempting to determine if the received electronic

message is an unwanted or an unsolicited electronic message, comprise computer-

executable instructions that, when executed, cause the receiving domain to utilize one

or more of checking for adherence to an electronic mail transmission policy and

checking for proof of effort by a sending domain (Kirsch, col. 7, lines 17-35).

28.   Claims 21-23, 25-28, 30, 32, 36-41, 43, 46-49 are rejected under 35

U.S.C. 102(e) as being anticipated by Lindeman et al. (U.S. 2003/0009698).

29.   Regarding claim 21, Lindeman disclosed, in a sending domain that is network

connectable to one or more receiving domains, the sending domain including a sending

messaging server configured to send electronic messages to the receiving domains, a

method for indicating to a receiving side domain that the sending messaging server

expended computational resources to solve a computational puzzle before sending an

electronic message to the receiving side domain, the method comprising:

an act of receiving electronic message data that is to be contained in an

electronic message (Lindeman, [0083]);

an act of generating an initial document from different portions state information

(Lindeman, [0086]);

an act of generating puzzle input from one or more components of the electronic

message, the one or more components selected from among at least a message body,

a message attachment, and a message header, puzzle input generation including one

or more of extracting portions of a component, hashing portions of a component, and

concatenating portions of a component (Lindeman, [0086]);

an act of identifying an answer document such that an answer hash value,

calculated from a combination of the answer document and the puzzle input hash value,

is an answer value for a computational puzzle, the answer value being calculated using

a puzzle hash algorithm (Lindeman, [0086]); and

an act of sending an electronic message that includes the identified answer

document and the electronic message data to the receiving side domain (Lindeman

[0083], confirmation request message and sender replies).

30.   Regarding claim 22, Lindeman disclosed the limitations as described in claim 21,

including wherein the act of receiving electronic message data that is to be contained in

an electronic message comprises an act of receiving electronic message data that is to be contained in an electronic mail message (Lindeman, [0083], "email").

31.   Regarding claim 23, Lindeman disclosed the limitations as described in claim 21, including wherein the act of generating an initial document from different portions of state information comprises an act of extracting data from at least one field of the electronic message data wherein the at least one field is selected from a From field, a To field, a NotBefore field, a NotAfter field, a Date field, a Body field, an Attachment field, a Subject field, and a Message-Id field (Lindeman, [0086]).

32.   Regarding claim 25, Lindeman disclosed the limitations as described in claim 21, including wherein the act of generating an initial document from different portions of the state information comprises an act of extracting data wherein the data is text data, graphical data, Uniform Resource Identifier ("URI") data, or executable data (Lindeman, [0086]).

33.   Regarding claim 26, Lindeman disclosed the limitations as described in claim 21, including wherein the act of identifying an answer document comprises an act of identifying an answer document that, when combined with the puzzle input and the combination of the answer document and puzzle input is hashed, results in a hash value having a specified value in a plurality of fixed bit positions (Lindeman, [0086]).

34.   Regarding claim 27, Lindeman disclosed the limitations as described in claim 26,
including wherein the act of identifying an answer document comprises an act of
identifying an answer document that, when preprended to the puzzle input and the
concatenation of the answer document and puzzle input is hashed, results in a hash
value having a value of zero in at least a first specified number of bits (Lindeman,
[0086]).

35.   Regarding claim 28, Lindeman disclosed the limitations as described in claim 21,
including wherein the act of identifying an answer document comprises an act of
identifying an answer document that, when concatenated to the puzzle input and the
concatenation of the answer document and puzzle input is hashed, results in a hash
value having specified bit values in a first plurality of bit positions and having bit values
equal to the corresponding bit values of in the hashes resulting from other answer
documents in a second plurality of bit positions (Lindeman, [0086]).

36.   Regarding claim 30, Lindeman disclosed the limitations as described in claim 21,
including wherein the act of identifying an answer document comprises an act of using
an puzzle hash algorithm, the puzzle hash algorithm being specifically designed to
increase the difficulty of implementing hardware acceleration of the puzzle hash
algorithm (Lindeman, [0086]).

37.   Regarding claim 32, Lindeman disclosed the limitations as described in claim 21,
including wherein the act of sending an electronic message that includes the identified
answer document and the electronic message data to the receiving side domain
comprises an act of sending an electronic message that includes a plurality of answer
documents (Lindeman, [0086], hash is made up of multiple answer pieces).

38.   Regarding claim 36, Lindeman disclosed, in a receiving domain that is network
connectable to one or more sending domains, the receiving domain including one or
more receiving messaging servers configured to receive electronic messages from the
sending domains, a method for determining if a sending messaging server solved a
computational puzzle before sending an electronic message, the method comprising:

     an act of receiving an electronic message that includes electronic message data
and an answer document (Lindeman, [0083]);

    an act of reproducing an initial document from different portions state information
contained in the message (Lindeman, [0032]);

    an act of recalculating a puzzle input from one or more components of the electronic
message, the one or more components selected from among at least a message body,
a message attachment, and a message header, puzzle input generation including one
or more of extracting portions of a component, hashing portions of a component, and
concatenating portions of a component (Lindeman, [0032], [0086]);

    an act of determining if a verifying hash value, calculated from a combination of an
answer document and the puzzle input hash value, is an answer value indicative of a

solution to the computational puzzle, the verifying hash value being calculated using a

puzzle hashing algorithm (Lindeman, [0032]);

and an act of providing results of the determination to a message classification

module such that the message classification module can make a more reliable decision

when classifying the received electronic message (Lindeman, [0086]-[0089]).

39.   Regarding claim 37, Lindeman disclosed the limitations as described in claim 36,

including wherein the act of receiving an electronic message that includes electronic

message data and an answer document comprises an act of receiving an electronic

mail message (Lindeman, [0083]).

40.   Regarding claim 38, Lindeman disclosed the limitations as described in claim 36,

including wherein the act of receiving an electronic message that includes electronic

message data and an answer document comprises an act of receiving an electronic

message that includes a plurality of answer documents (Lindeman, [0086], hash is

made up of multiple answer pieces).

41.   Regarding claim 39, Lindeman disclosed the limitations as described in claim 36,

including wherein the act of reproducing an initial document from different portions of

state information contained in the electronic message comprises an act of extracting

data from a field of the electronic message data wherein the field is selected from

among a From field, a To field, a NotBefore field, a NotAfter field, a Date field, a Body

field, an Attachment field, a Subject field, and a Message-ID field (Lindeman, [0086]).

42.   Regarding claim 40, Lindeman disclosed the limitations as described in claim 36,

including wherein the act of reproducing an initial document from different portions of

state information contained in the electronic message comprises an act of extracting

data from the electronic message data wherein the data is text data, graphical data,

Uniform Resource Identifier ("URI") data, or executable data (Lindeman, [0086]).

43.   Regarding claim 41, Lindeman disclosed the limitations as described in claim 36,

including wherein the act of recalculating a puzzle input from one or more components

of the electronic message comprises an act of applying an altered hashing algorithm,

the altered hashing algorithm being specifically designed to increase the difficulty of

implementing hardware acceleration that can be used to enhance efficiency of altered

hashing algorithm (Lindeman, [0086]).

44.   Regarding claim 43, Lindeman disclosed the limitations as described in claim 36,

including wherein the act of determining if a verifying hash value, calculated from a

combination of an answer document and the puzzle input, is an answer value indicative

of a solution to the computational puzzle comprises an act of determining if the verifying

hash value has a specified value in a plurality of fixed bit positions interspersed

throughout the verifying hash value (Lindeman, [0032], [0086]).

45.   Regarding claim 46, Lindeman disclosed a computer program product for use in a sending domain that is network connectable to one or more receiving domains, the sending domain including a sending messaging server configured to send electronic messages to the receiving domains, the computer program product for implementing a method for indicating to a receiving side domain that the sending messaging server expended computational resources to solve a computational puzzle before sending an electronic message to the receiving side domain, the computer program product comprising one or more computer-readable media having stored thereon computer executable instructions that, when executed by a processor, cause the sending domain to perform the following: receive electronic message data that is to be contained in an electronic message;

generate an initial document from different portions state information (Lindeman, [0086]);

generate puzzle input from one or more components of the electronic message, the one or more components selected from among at least a message body, a message attachment, and a message header, puzzle input generation including one or more of extracting portions of a component, hashing portions of a component, and concatenating portions of a component (Lindeman, [0086]);;

identify an answer document such that an answer hash value, calculated from a combination of the answer document and the puzzle input hash value, is an answer

value for a computational puzzle, the answer value being calculated using a puzzle

hash algorithm (Lindeman, [0032], [0086]);;

and send an electronic message that includes the identified answer document and

the electronic message data to the receiving side domain (Lindeman, [0083]);.

46.   Regarding claim 47, Lindeman disclosed a computer program product for use in

a receiving domain that is network connectable to one or more sending domains, the

receiving domain including one or more receiving messaging servers configured to

receive electronic messages from the sending domains, the computer program product

for implementing a method for determining if a sending messaging server solved a

computational puzzle before sending an electronic message, the computer program

product comprising one or more computer-readable media having stored thereon

computer executable instructions that, when executed by a processor, cause the

receiving domain to perform the following:

receive an electronic message that includes electronic message data and an

answer document (Lindeman, [0083]);

reproduce an initial document from different portions state information contained

in the message (Lindeman, [0032]);

recalculate a puzzle input from one or more components of the electronic

message, the one or more components selected from among at least a message body,

a message attachment, and a message header, puzzle input generation including one

or more of extracting portions of a component, hashing portions of a component, and concatenating portions of a component (Lindeman, [0032]);

　　　　determine if a verifying hash value, calculated from a combination of an answer document and the puzzle input hash value, is an answer value indicative of a solution to the computational puzzle, the verifying hash value being calculated using a puzzle hashing algorithm (Lindeman, [0032]); and

　　　　provide results of the determination to a message classification module such that the message classification module can make a more reliable decision when classifying the received electronic message (Lindeman, [0032], [0086]);.

47.　　Regarding claim 48, Lindeman disclosed a computer program product for use in a receiving domain that is network connectable to one or more sending domains, the receiving domain including one or more receiving messaging servers configured to receive electronic messages from the sending domains, the computer program product for implementing a method for generating inputs to be provided to a message classification module, the computer program product comprising one or more computer-readable media having stored thereon computer executable instructions that, when executed by a processor, cause the receiving domain to perform the following:

　　　　receive an electronic message (Lindeman, [0083]);

　　　　utilize one or more of a plurality of different mechanisms for attempting to determine if the received electronic message is an unwanted or an unsolicited electronic message (Lindeman, [0086]); and

provide results of each of the one or more different mechanisms to a message

classification module such that the message classification module can make a more

reliable decision when classifying the received electronic message (Lindeman, [0086]).

48.   Regarding claim 49, Lindeman disclosed the limitations as described in claim 48,

including wherein computer-executable instructions that, when executed, cause the

receiving domain to utilize one or more of a plurality of different mechanisms for

attempting to determine if the received electronic message is an unwanted or an

unsolicited electronic message, comprise computer-executable instructions that, when

executed, cause the receiving domain to utilize one or more of checking for adherence

to an electronic mail transmission policy and checking for proof of effort by a sending

domain (Lindeman, [0086]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

49.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Lindeman et al (U.S. 2003/0009698) in view of Wilson (U.S. 2004/0015554).

50.   Regarding claim 24, Lindeman disclosed the limitations as described in claim 21.

Lindeman did not explicitly state wherein the act of generating an initial document from different portions of state information comprises an act of extracting data from one or more date range fields.

In an analogous art, Wilson disclosed an active email filter with challenge-response, in which Wilson provides evidence date and time fields are part of the standard email protocol (Wilson, [0038]).

Therefore, while Lindeman did not explicitly state extracting data from a date range field, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the standard fields that are part of the standard protocol since doing so would not require any extra implementation and using these fields would provide the system with more information per message, thereby increasing ease of determining whether a message is considered spam or not.

Allowable Subject Matter

51.   Claims 29, 31, 33-35, 42, 44 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 29 and 44, the prior art disclosed hashing pieces of an email message to use as a computational puzzle, but did not explicitly disclose, in addition to the rest of the claim limitations, in which the hash value includes values equal to corresponding hash bit values resulting from other answer documents in a hash value suffix.

Regarding claims 31 and 42, the prior art disclosed the use of SHA-1 algorithms for hashing in email (see White et al. U.S. 7,310,660), the prior art did not explicitly disclose using an algorithm that alters the SHA-1 sub-functions.

Regarding claims 33 and 34-35 (assuming these claims were meant to be dependent on claim 33), the prior art did not explicitly disclose querying a server to determine if the receiving domain is configured to verify answers to computational puzzles and receiving one or more DNS TXT records that contain electronic message configuration information for the receiving domain.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jerry Dennison/
Examiner, Art Unit 2143